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| 10/519,156 | 12/17/2004 | Kathleen Kurschner | 3075-005 | 6599 |
| 33432 7590 07/02/2007 KILYK & BOWERSOX, P.L.L.C. 400 HOLIDAY COURT SUITE 102 WARRENTON, VA 20186 | | | EXAMINER CHAWLA, JYOTI | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/519,156 | Applicant(s) KURSCHNER ET AL. | |
| | Examiner Jyoti Chawla | Art Unit 1761 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment filed April 5, 2007 has been entered. Claim 1 has been amended and claims 2 and 10-11 have been cancelled. Claims 1, 3-9 are pending and are examined in the application.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(1) Claims 1-5, 7, 9-11 are rejected under 35 U.S.C. 102(b) as being unpatentable over Matsunaga (U.S. 3901983).

The rejection has been withdrawn in light of applicant's amendments dated April 5, 2007.

(2) Claims 1-5, 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Khatchatrian et al (WO 01/53418).

The rejection has been withdrawn in light of applicant's amendments dated April 5, 2007.

(3) Claims 1-5, 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Robinowitz (US 5160756).

The rejection has been withdrawn in light of applicant's amendments dated April 5, 2007.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(A) Claims 1, 3-5, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinowitz et al (US 5160756) in view of Boullion et al (5830445). Robinowitz et al, hereinafter Robinowitz teaches extraction of products from Almond fruit (shelled fruit), specifically almond hulls (by-products) utilizing multi-step/ multi-stage process (Abstract, figure 1, Column 1, lines 20-25, and 64-68) as recited by the

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applicant in claims 1 and 4. Robinowitz also teaches that the almond hulls (nut by-product) are used for animal feed, i.e., food (Column 2, lines 1-4) and dietary fiber and sweetener fit for human consumption (Column 2, lines 27-39 and Column 3) as recited in claims 7 and 9. The reference further teaches coloring components (tannins) can be extracted from the almond hull can be dried to produce a dried tannin product. The dry vegetable products (Column 2, lines 24-28) such as fiber, tannins and sweeteners can be used as such or added to other products as recited in claims 3 and 5. Thus the reference teaches of heat-treated and dried (i.e., roasted) by-products (tannins) of hard-shelled fruit as recited in claim 1. The reference, however, does not teach of hazelnut. Thus almond nut by-products were known in the art at the time of the invention (Robinowitz). Hazelnuts are a popular food source and also have a hard shell. The nuts are shelled and consumed and thus the shells are left as a natural by-product just as in the case of almonds. Therefore, one of ordinary skill would have been motivated to look to the art for similar treatment for other nuts such as hazelnuts. Bouillon teaches of a dry extract obtained from shells of nuts including hazelnut shells (Abstract and Column 3, lines 44-45). The dried flour or extract made from hazelnut shells is dried in a drier (Example 1, Column 5, line 13-15), i.e., roasted by-product. Thus dry extracts of nut by-products, such as, from almond or hazelnut shells, were known in the art at the time of the invention, as taught by Robinowitz and Bouillon. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Robinowitz and make dried extracts from the shells and other by-products of other nuts, such as, hazelnuts to make economically and environmentally beneficial products from the leftover vegetable matter of the nuts. One would have been motivated to do so in order to use the plant matter to a better extent and also make natural products for use in field other than food.

Regarding claim 5, Robinowitz teaches of tannins which are defined by The American Heritage Science Dictionary as "Any of various compounds, including tannic acid, that occur naturally in the bark and fruit of various plants, especially the nutgalls, certain oaks, and sumac. Tannins are polyphenols, and form yellowish to light brown amorphous masses that can be powdery, flaky, or spongy. They are used in

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photography, dyeing, in tanning leather, in clarifying wine and beer, and as an astringent in medicine. Tannins are also an important ingredient in tea." Thus tannins were known to be used in a method of coloring a product. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Robinowitz and use the dry tannin extract in a method of coloring a product as recited in claim 5.

Regarding claim 8, Robinowitz teaches of a tannin product from almond hull, which when applied to a substrate would form a film as instantly claimed as it is an inherent property of a coloring matter to provide color to the substrate it is applied to.

Regarding claims 9, which has a product by process limitation, Robinowitz teaches of making dietary fiber and feed (Column 2, lines 1-4) as instantly claimed.

"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

(B) Claims 1, 3-5, and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinowitz et al (US 5160756) in view of the combination of Lathrop et al (2510119) and .

Robinowitz et al, hereinafter Robinowitz teaches extraction of products from Almond fruit (shelled fruit), specifically almond hulls (by-products) utilizing multi-step/ multi-stage process (Abstract, figure 1, Column 1, lines 20-25, and 64-68) as recited by the applicant in claims 1 and 4. Robinowitz also teaches that the almond hulls (nut by-product) are used for animal feed, i.e., food (Column 2, lines 1-4) and dietary fiber and sweetener fit for human consumption (Column 2, lines 27-39 and Column 3) as recited in claims 7 and 9. The reference further teaches coloring components (tannins) can be extracted from the almond hull can be dried to produce a dried tannin product. The dry vegetable products (Column 2, lines 24-28) such as fiber, tannins and sweeteners can be used as such or added to other products as recited in claims 3 and 5. Thus the reference teaches of heat-treated and dried (i.e., roasted) by-products (tannins) of hard-

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shelled fruit as recited in claim 1. The reference, however, does not teach of hazelnut. Thus almond nut by-products were known in the art at the time of the invention (Robinowitz). Hazelnuts are a popular nutritional source and also have a hard shell. The nuts are shelled and consumed and thus the shells are left as a natural by-product just as in the case of almonds. Therefore, one of ordinary skill would have been motivated to look to the art for similar treatment for other nuts such as hazelnuts. Lathrop et al, hereinafter Lathrop teaches processing of nut shells into beneficial products such as tannins or colorants, i.e., nut by-products. The reference also teaches that tannin bearing nut shells are found in genus and *Hicora* (hickory nut and pecan and walnut) and *Corylus* (i.e., hazelnuts) (Column 3, lines 55-60). The reference further teaches extraction of coloring matter from Filbert shells as an example (Column 4, Example 2). Filbert is a nut bearing hazel variety, i.e., filbert is a variety of hazelnut. Thus Lathrop reference teaches that pecan, walnuts, filberts or hazelnut shells contain coloring matter, like almonds. Further extraction of color bearing products, i.e., tannins from nut by-products was well known in the art at the time of the invention. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention to modify Robinowitz and make dry extracts from shells of other nuts, such as, pecans, filberts (hazelnuts). One would have been motivated to do so in order to make economically and environmentally beneficial products from the leftover vegetable matter of the nuts. One would have been motivated to do so in order to use the plant matter to a better extent and also make natural products for use in field other than food.

Regarding claim 5, Robinowitz teaches of tannins which are defined by The American Heritage Science Dictionary as "Any of various compounds, including tannic acid, that occur naturally in the bark and fruit of various plants, especially the nutgalls, certain oaks, and sumac. Tannins are polyphenols, and form yellowish to light brown amorphous masses that can be powdery, flaky, or spongy. They are used in photography, dyeing, in tanning leather, in clarifying wine and beer, and as an astringent in medicine. Tannins are also an important ingredient in tea." Thus tannins were known to be used in a method of coloring a product. Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to modify Robinowitz and use the dry tannin extract in a method of coloring a product as recited in claim 5.

Regarding claim 8, Robinowitz teaches of a tannin product from almond hull, which when applied to a substrate would form a film as instantly claimed as it is an inherent property of a coloring matter to provide color to the substrate it is applied to.

Regarding claims 9, which has a product by process limitation, Robinowitz teaches of making dietary fiber and feed (Column 2, lines 1-4) as instantly claimed.

"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

(C) Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinowitz in view of Lathrop as applied to claims 1, 3-5 and 9 above, further in view of Lenoble et al. (US 5912363).

Robinowitz in view of Lathrop has been applied to claims 1, 3-5, and 9 above.

Robinowitz in view of Lathrop teach dry extracts from nut shells, such as, hazelnut, pecan and almonds. The references, however, do not teach that the nut by-products have an effect on stabilizing the product containing anthocyanins or anthocyanidins. Anthocyanins have been known in the art as red, red brown and blueish red food pigments obtained from vegetable or plant matter, such as grape, elderberry etc. and are added to foods to provide red or reddish brown color as recited in claim 7. Dried extracts from shells of nuts, such as, almonds, paeans and filberts (hazelnuts) have been known for tannins, i.e., coloring compounds (Robinowitz and Lothrop). Therefore one of ordinary skill in the art would have been motivated to look to the art for examples of color stabilizing compounds obtained from nut by-products. Lenoble et al, hereinafter Lenoble, teaches that water extracts of peanut hulls (nut extracts) act as co pigments and also as pigment stabilizing agents for the foods containing anthocyanin pigments, such as grape, elderberry, hibiscus and red cabbage (Column 10, line 60 to Column 13,

line 52). Thus Lenoble teaches that color compounds from peanuts have been known to enhance and stabilize the anthocyanin pigment (Lenoble, Table VIII). Thus it would have been well within the purview of a skilled artisan to see if the coloring compounds from by-products of other nuts also stabilize the anthocyan or anthocyanin pigments. Furthermore, it would not be unexpected to one of ordinary skill in the art at the time of the invention that dark (browns and red browns) color imparting compounds (tannins) from plant product (shells of nuts) would enhance and stabilize the color of red, red brown pigments of anthocyanins. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the dried extracts from shells of nuts that contain tannins would stabilize the anthocyan or anthocyanin pigments in a product as is instantly claimed.

(D) Claims 1-5, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ivie (US 5219818) and Matsunaga further in view of Lenoble et al. (US 5908650). The rejection has been withdrawn in light of applicant's amendments.

(F) Claims 1,3-5, 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Khatchatrian et al (WO 01/53418) in view of Lothrop et al (US 2510119). The rejection has been withdrawn in light of applicant's amendments.

Response to Arguments

Applicant's arguments, see remarks, pages 4-10, filed April 5, 2007, with respect to claim rejections have been fully considered but are moot in view of new grounds of rejection owing to the amendment.

The Affidavit or declaration filed on April 5, 2007 under 37 CFR 1.131 has been received and taken into consideration.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (571) 272-8212. The examiner can normally be reached on 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jyoti Chawla
Examiner
Art Unit 1761



KEITH HENDRICKS
PRIMARY EXAMINER